

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Status of Claims:

Claims 2 - 12 are currently being canceled.

Claim 1 is currently being amended.

Claims 13 - 22 are currently being added.

This amendment adds, cancels and amends claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claims remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1 and 13-22 are now pending in this application.

Request for Information Disclosure Statement Acknowledgement:

The Examiner is requested to evidence consideration of the reference submitted in an Information Disclosure Statement (IDS) filed on September 19, 2000, by returning an initialed copy of the Form PTO-1449 submitted to the PTO with that IDS.

Objection to Title:

In the Office Action, the title of the invention was objected to as not be clearly indicative of the invention to which the claims are directed. A new, more descriptive title is being submitted with this amendment and reply.

Objection to Drawings:

In the Office Action, the drawings were objected to because they allegedly do not show the English language equivalent for each of the components shown in the drawings. This objection is respectfully traversed. The Examiner appears to refer to the drawings filed with the application on September 9, 2000; however, in response to a Notice to File Missing Parts,

English language formal drawings were filed with the PTO on March 19, 2001. It is respectfully requested that the Examiner indicate approval of those formal drawings filed on March 19, 2001.

Claim Rejections:

In the Office Action, claims 1, 2 and 4-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,162,925 to Takaoka et al. in view of U.S. Patent No. 5,689,588 to Rombola et al.; claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Takaoka et al. in view of Rombola et al. and further in view of U.S. Patent No. 5,907,370 to Suzuki et al.; and claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Takaoka et al. in view of Suzuki et al. and further in view of Rombola et al. These rejections are traversed with respect to the present pending claims, for at least the reasons given below.

Presently pending claim 1 is based on the structure shown in Figure 4 of the drawings and the explanation thereof in the specification. None of the cited art of record teaches or suggests such a structure. In particular, none of the cited art of record teaches or suggests:

color conversion means for converting the input image data of red, green, and blue into color signals of cyan, magenta, and yellow, respectively;

space filter means for executing filtering process on the color signals of cyan, magenta, and yellow, which are converted by the color conversion means, on the basis of discrimination signals discriminated by the image area separation means;

information addition means for outputting an m-bit signal of each color, which is filter-processed by the space filter means, and an n-bit discrimination signal, which is discriminated by the image area separation means, as m-bit information, to second processing circuit, and

information extraction means for extracting both the m-bit signal of each color and the n-bit discrimination signal from m-bit information output by the information addition means;

black-coloring means for generating a black color signal from the color signals of cyan, magenta, and yellow, which are extracted from the information addition means, on the basis of the discrimination signal, which are extracted from the information extraction means, and for outputting the color signals of cyan, magenta, yellow, and black;

γ correction means for correcting tone characteristics of the color signals of cyan, magenta, yellow, and black, which are output from the black-coloring means, on the basis of the discrimination signal extracted from the information extraction means; and

tone processing means for tone-processing the color signals of cyan, magenta, yellow, and black, which are corrected by the γ correction means, on the basis of the discrimination signal extracted from the information extraction means.

Dependent claim 13 is based on the structure shown in Figure 11 of the drawings and the explanation thereof in the specification.

Dependent claim 14 is based on the structure shown in Figure 19 of the drawings and the explanation thereof in the specification.

Dependent claim 15 is based on the structure shown in Figure 20 of the drawings and the explanation thereof in the specification.

Dependent claim 16 is based on the structure shown in Figure 22 of the drawings and the explanation thereof in the specification.

Dependent claim 17 is based on the structure shown in Figure 23 of the drawings and the explanation thereof in the specification.

Dependent claim 18 is based on the structure shown in Figure 24 of the drawings and the explanation thereof in the specification.

Dependent claim 19 is based on the structure shown in Figure 25 of the drawings and the explanation thereof in the specification.

Dependent claim 20 is based on the structure shown in Figure 27 of the drawings and the explanation thereof in the specification.

Dependent claim 21 is based on the structure shown in Figure 30 of the drawings and the explanation thereof in the specification.

Dependent claim 22 is based on structure shown in Figure 32 of the drawings and the explanation thereof in the specification.

These dependent claims recite additional features of the present invention that are believed to provide a separate basis of patentability for these claims.

Conclusion:

Applicants believe that the present application is now in condition for allowance, and an early indication of allowance is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. § 1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date September 7, 2004

FOLEY & LARDNER LLP
Customer Number: 22428
Telephone: (202) 945-6162
Facsimile: (202) 672-5399

Phillip J. Articola
Pavan K. Agarwal
Registration No. 40,888

Phillip J. Articola
Registration No. 38,819